



## PRODUCT DATA SHEET

**Product:** Caspase-7 Enzyme

**Cat. No:** EN-005 (5 µg)

**Recombinant Protein:**

Recombinant protein purified from *E. coli*. When expressed in *E. coli*, caspase-7 spontaneously undergoes autoprocessing to yield the subunits characteristic of the active enzyme.

**Format:**

5 µg enzyme in approximately 25 µl of 50 mM TRIS (pH 8.0), with 100 mM sodium chloride and 50 mM imidazole.

**Protocol:**

Enzyme evaluation protocol:

This protocol is used to measure caspase enzyme activity.<sup>1</sup> The synthetic fluorogenic peptide Ac-DEVD-AFC (Cat. No. AC-003) is used as the enzyme substrate. The enzyme cleaves the substrate, releasing fluorescent AFC. Release of free AFC is monitored using a fluorometer.

1. Assay buffer: 20 mM PIPES (pH 7.2), 100 mM sodium chloride, 10 mM DTT, 1 mM EDTA, 0.1% (w/v) CHAPS, 10% sucrose.
2. Add Ac-DEVD-AFC from a DMSO stock solution to a final concentration 0.1 mM.
3. Add the appropriate amount of active caspase to the mixture (100 ng/ml recommended for caspase-7).
4. Incubate for 1 hr at 37°C.
5. Measure the AFC liberated from the Ac-DEVD-AFC using a fluorometer with an excitation wavelength of 400 nm and an emission wavelength of 505 nm.

**Storage and Stability:**

As supplied the enzyme should be stored at -80°C. The enzyme is stable at +4°C for at least one week. Avoid multiple freeze/thaw cycles and exposure to frequent temperature changes.

**References:**

1. Stennicke, H.R. and Salvesen, G.S. (1997) Biochemical Characteristics of caspases-3, -6, -7, and -8. *J. Biol. Chem.* **272**: 25719-25723.

**Limitations:**

For *in vitro* research use only. Not for use in diagnostics or in humans.

**Warranty:**

No warranties, expressed or implied, are made regarding the use of this product. KAMIYA BIOMEDICAL COMPANY is not liable for any damage, personal injury, or economic loss caused by this product.